

## **2010 Drinking Water Report**

As required by the federal Safe Drinking Water Act, the City of Woodbury is issuing the results of monitoring done on its drinking water for the period from Jan. 1 to Dec. 31, 2010. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

We are proud to report that no contaminants were detected at levels that violated state and federal drinking water standards.

This special newsletter contains the city's annual water quality report, which includes information on the monitoring done on Woodbury drinking water during 2010. Please review the report and, if you have questions, contact Dan Hansen, utility superintendent, at (651) 714-3720.

#### How much water does Woodbury use?

In 2010, residents and businesses in Woodbury used nearly 2.42 billion gallons of water. This works out to an average of about 6.6 million gallons of water per day (MGD). A typical Woodbury family consumes approximately 24,500 gallons of water each quarter of the year, on average. Water use is lower than the average during the winter months (approximately 4.1 MGD), and higher in the summer (10 MGD), primarily due to lawn watering. The maximum summer day usage in 2010 was 15.6 million gallons.

#### Where does the city get its water?

The City of Woodbury provides safe drinking water to its residents and businesses by pumping water from a groundwater source:

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#### Beware of deceptive sales tactics for water treatment systems

The City of Woodbury is reminding residents to beware of false claims, deceptive sales pitches, and scare tactics being used by some water treatment companies to sell expensive and

unnecessary water treatment systems.

"Recent investigations of groundwater contamination in Washington County have resulted in a noticeable increase in the number of complaints regarding such deceptive sales activities," said Dan Hansen, utility superintendent. "In some of the worst instances, the salesperson has implied or said that he

is working with the city's water utility or the state health department."

While the sales pitch can vary, the salesperson nearly always:

- Recites a list of recent groundwater contamination problems across the state, regardless of whether the contamination actually affects the resident or not.
- Conducts a series of water quality "tests" that the salesperson claims indicate the presence of contamination, when in fact they may simply indicate the presence of naturally occurring minerals in the water.
- Presents a "one-time only" offer of a water treatment system at a "greatly reduced" price, when in fact the systems are being sold at grossly inflated prices.
- Misrepresents state and federal drinking water standards, claiming the resident's water exceeds allowable limits of contaminants, and implying the water is unsafe to drink.

"The U.S. Environmental Protection Agency sets standards for public water supplies and Woodbury's water is tested frequently to ensure that these standards are met," said Hansen. "Our municipal drinking water is in full compliance with all federal and state rules governing your drinking water."

If you are considering the purchase of a home water treatment system, the Minnesota Department of Health (MDH) recommends the following:

Make sure the treatment system or device you are considering is certified to achieve the results being claimed. Reliable certifiers include: NSF International, Underwriters Laboratories (UL), and the Water Quality Association (WQA). Links to these organizations can be found at www.health.state. mn.us/divs/eh/wells/links.html.

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#### **Drinking Water Report...from page 1**

the Prairie Du Chien/Jordan aquifers. The city currently has 17 wells ranging from 405 to 540 feet deep.

The water provided to customers meets drinking water standards. The city's wells meet all construction standards and do not present a pathway for contamination to readily enter the water supply. However, the Minnesota Department of Health also made a determination as to how vulnerable the source of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call (651) 201-4700 or 1-800-818-9318 (and press

5) during regular business hours. Also, you can view it online at www.health.state.mn.us/divs/eh/water/swp/swa.

Call Dan Hansen, utility superintendent, at (651) 714-3720 if you have questions about the City of Woodbury drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

#### Monitoring results

No contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were

detected in trace amounts
that were below the maximum
allowed in drinking water.
The table that follows shows
the contaminants that were
detected in trace amounts in
2010. (Some contaminants are
sampled less frequently than
once a year; as a result,
not all contaminants were
sampled for in 2010. If any
of these contaminants were detected the last
time they were sampled for, they are included
in the table along with the date that the detection occurred.)

## **Substances detected in Woodbury water**

Substance – Unit of Measure	Amount Detected (average)*	Meets Standard	Allowed Max. (MCL)	Ideal Max. (MCLG)	Range Detected (2010)	Typical Source in Drinking Water	
Alpha Emitters (radioactive substances)-in pCi/L	3.98	~	15.4	0	3.1-5.5	Erosion of natural deposits.	
Arsenic-in ppb	2.61	<b>V</b>	10	0	N.A.	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.	
Combined Radium-in pCi/L	0.6	V	5.4	0	nd-1.4	Erosion of natural deposits.	
Fluoride-in ppm	1.18	V	4	4	0.98-1.2	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.	
Nitrate (as Nitrogen)-in ppm	2.2	V	10.4	10.4	nd-2.2	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	
TTHM (Total trihalomethanes- produced as a by-product of chlorination)-in ppb	6.97	V	80	0	N.A.	By-product of drinking water disinfection (chlorination).	
Haloacetic Acids (HAA5)-in ppb	1.7	V	60	0	N.A.	By-product of drinking water disinfection (chlorination).	
Perfluorobutanoic acid (PFBA)	In 2007, the Minnesota Department of Health (MDH) found low levels of the chemical perfluorobutanoic acid (PFBA) in wells serving the city's water system. The MDH evaluated the toxicity of PFBA and established a health-based value (HBV) for PFBA of 7 parts per billion (ppb). In 2010, the levels found in Woodbury water samples ranged from 0.069 to 0.406 ppb, well below the HBV. For more information, see the PFBA article on page 5.						

\*This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

#### **Glossary of abbreviations:**

AL - Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

90th Percentile Level: This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only five samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

MCL - Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the ideal maximums (MCLGs) as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL - Maximum Residual Disinfectant Level.

MRDLG - Maximum Residual Disinfectant Level Goal.

N.A. - Not applicable: Does not apply.

nd - No detection.

*pCi/L - PicoCuries per liter*: A measure of radioactivity in water.

ppb - Parts per billion: The number of units of the substance, in its pure form, found in every billion units of water. Can also be expressed as micrograms per liter.

ppm - Parts per million: The number of units of the substance, in its pure form, found in every million units of water. Can also be expressed as milligrams per liter.

## **Radon testing**

Radon is a radioactive gas that is naturally occurring in some groundwater. It poses a lung cancer risk when gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes) and a stomach cancer risk when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Contaminant Level (AMCL) of 4,000 picoCuries per liter may apply in states that have adopted an Indoor Air Program, which compels citizens, homeowners, schools, and communities to reduce the radon threat from indoor air. For states without such a program, the Maximum Contaminant Level (MCL) of 300 pCi/L may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized by the federal government.

Substance – Unit of Measure	Amount Detected (average)*	Meets Standard	Range Detected (2010)	Typical Source in Drinking Water
Radon-in pCi/L Test date: 8-11-2009	416	<b>V</b>	N.A.	Erosion of natural deposits.

<sup>\*</sup>This is the value used to determine compliance with federal standards.

### **Other substances**

Some contaminants do not have Maximum Contaminant Levels (MCLs) established for them. These "unregulated contaminants" are assessed using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminant are found, the response is the same as if an MCL (the allowed maximum) has been exceeded; the water system must inform its customers and take other corrective actions. In the table that follows are the unregulated contaminants that were detected. Based on state standards, none of the substances detected pose health risks.

Substance – Unit of Measure	Average/ Result	Meets Standard	Range (2010)	Typical Source in Drinking Water				
Sodium-in ppm	12.6	<b>V</b>	3.0-12.6	Erosion of natural deposits.				
Sulfate-in ppm	26.6	V	14.5-26.6	Erosion of natural deposits.				

Monitoring for unregulated contaminants as required by U.S. Environmental Protection Agency rules (40 CFR 141.40) was conducted in 2010. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson, Minnesota Department of Health, at (651) 201-4656.



Well rehabilitation work, which generally is needed about every 10 years, was recently completed on wells No. 3 and 9. Left: A 200 horsepower motor drives the pump in Well 9, which is designed to produce approximately 1,000 gallons of water per minute. Work on the well, located north of Valley Creek Road and west of Radio Drive, involved bailing sand out of the cavity; pump and pipe activity; safety enhancements and upgrades; security improvements; data logging and control upgrades; motor and pump inspection and repairs; roof repair and interior painting.

The result will be better water flow and less possibility of sand entering the system. The work also upgraded the well to current design specifications. Rehabilitation projects are typically completed during fall and winter when water demand is relatively low. Woodbury operates 17 municipal water wells.

## **Chlorine testing**

Chlorine is added to protect the water system from biological growth or bacteria. Chlorine samples are taken daily from different areas of the city to verify that the disinfection properties are carried throughout the entire system.

Substance – Unit of Measure	Highest Quarterly Average	Highest and Lowest Monthly Average	Meets Standard	Allowed Max. (MRDL)	Ideal Max. (MRDLG)	Typical Source in Drinking Water
Chlorine-in ppm	0.63	0.5-0.7	V	4	4	Water additive used to control microbes.

## **Lead and copper testing**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Woodbury is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has not been turned on for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

The city tests for lead and copper every three years by collecting water samples from a representative set of households in the city. The chart below shows the results of tests performed during 2008. **No contaminants were detected at levels that violated federal drinking water standards.** 

Substance – Unit of Measure	Action Level (AL)	90% Level	# sites over AL	Meets Standard	ldeal Max. (MCLG)	Typical Source in Drinking Water
Copper-in ppm Test date: 7-30-2008	1.3	0.12	0 out of 30	<b>V</b>	1.3	Corrosion of household plumbing systems; erosion of natural deposits.
Lead-in ppb Test date: 7-30-2008	15	3	0 out of 30	<b>V</b>	0	Corrosion of household plumbing systems; erosion of natural deposits.

#### Sales tactics...from page 1

- Work with a reputable water treatment company that has experience working in your area.
- Verify that the installation is done by a licensed plumber or licensed water conditioning contractor (as required by state law). Such plumbers and contractors are licensed through the Minnesota Department of Labor and Industry (www.dli.mn.gov/CCLD/Plumbing.asp).
- Compare water treatment systems and prices.
- If you obtain your drinking water from a public water supply, such as a city system, contact your local water system for more information regarding your water quality, hardness and other characteristics.

- If you use a private well, contact your county public health agency, the Minnesota Department of Health, or the Minnesota Pollution Control Agency regarding water quality in your area.
- If you are contacted by a company to test your water and they say they are working with your city or the state, ask for their contact person at that agency.

It is also important to remember that maintenance of any water treatment system or device is critical for long-term performance. Filters may need to be replaced or backwashed on a regular basis to ensure continued efficient removal of chemicals and to prevent the growth of bacteria or the formation of nitrite. Be wary of companies that claim their systems are maintenance free.

Anyone who believes they have been provided false or misleading information or that they have been subjected to unfair or high-pressure tactics in the course of a sales visit should contact the Minnesota Attorney General's office Consumer Complaints division at (651) 296-3353 or 1-800-657-3787 or online at www.ag.state.mn.us/Consumer/Complaint.asp.

Additional information about drinking water and home water treatment systems is available on the MDH website at:

- www.health.state.mn.us/divs/eh/wells/index.html and
- www.health.state.mn.us/divs/eh/water/factsheet/com/pou.html.

# PFBA levels remain well below health-based value

In 2007, the Minnesota Department of Health (MDH) found low levels of the chemical perfluorobutanoic acid (PFBA) in wells serving the city's water system. PFBA is one of a family of chemicals known as perfluorochemicals (PFCs).

The MDH evaluated the available information on the toxicity of PFBA and established a health-based value (HBV) for PFBA of 7 parts per billion (ppb). The HBV is a level that is deemed safe for human consumption, even if the water is consumed daily over a lifetime.

Woodbury's levels of the chemical remain well below the guideline. Municipal wells were sampled on a quarterly basis in 2010. The amount of PFBA found in all wells ranged between 0.069 and 0.406 ppb. MDH is not recommending that the city or residents take any special precautions regarding their use of the water.

Monitoring of Woodbury's municipal water supply for PFCs will continue. More than four years of sampling city wells has shown that the levels of PFBA have been stable – neither increasing nor decreasing. Two PFCs found in Oakdale, known as PFOS and PFOA, have not been detected in Woodbury water. Continued sampling will reveal whether the levels and/or contaminants are changing.

#### What are PFCs?

PFCs were made by 3M in Cottage Grove and

by other companies around the world for use in household and industrial products. PFC wastes were disposed of in several landfills in Washington County.

City officials pushed for an aggressive cleanup of the former 3M disposal site near Woodbury's border with Cottage Grove, the Oakdale 3M disposal site, the former Washington County landfill, and the Cottage Grove 3M site – all shown to be sources of the groundwater contamination. Cleanup activity at all four sites began in 2009.

All excavating, sampling, hauling and backfilling at the 3M disposal site in Woodbury have been completed. Final grading and restoration of the site was scheduled to be completed this spring. A groundwater extraction system also remains operational at the site to capture and prevent off site migration of PFCs.

Additional investigations and cleanup actions are under way at the 3M waste disposal sites, and the Minnesota Pollution Control Agency is investigating other possible sources of PFCs in the environment.

For more information, visit the MDH website at www.health.state.mn.us. Updates also will be provided on the city's website at www.ci.woodbury.mn.us if new information becomes available.

## **Upgraded meters improve efficiencies**

This summer, the city's utility workers will continue upgrading water meters and outside readers (OSRs).

The new water meters and OSRs allow the city's meter readers to simply scan the meter reading into a handheld device rather than manually writing down the meter reading, resulting in more efficient readings of water usage for billing. The devices also can help identify leaks.

The city will mail notification to customers who are due for an installation of the device. The letter will direct property owners to call Public Works to schedule the upgrade. It typically takes between 30 and 60 minutes to replace the meter and OSR. There is no cost to the home owner.

The meter change-out program has been ongoing for several years. The city strives to replace 600 meters and outside readers each year; about 2,400 meters and outside readers remain to be upgraded.

Questions should be directed to Public Works at (651) 714-3720.



The City of Woodbury is a member of the American Water Works Association, an international nonprofit scientific and educational society dedicated to the improvement of drinking water quality and supply. The city also is a member of the American Public Works Association.

# Contaminants and drinking water

The sources of drinking water in the United States (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain **at least small amounts of some contaminants.** The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.



## **Don't flush unwanted medications!**

Do you want to dispose of expired or unwanted prescription or over-the-counter medications? Please don't flush them down the toilet or a drain

Although flushing prevents immediate accidental ingestion, the chemicals in the medications can eventually end up in rivers and streams, causing adverse effects to fish and other aquatic wildlife. In addition, when the water is eventually reused, it also can cause unintentional human exposure to chemicals in medications.

Your unwanted medications can be disposed of in your trash. Following are the appropriate steps to take, according to the Minnesota Pollution Control Agency (MPCA):

- 1. Keep the medication in its original container. The label may contain safety information and the cap is typically childproof. Scratch out the patient's name or use a permanent marker to cover it.
- 2. Modify the medication to discourage consumption. For solids, such as pills or

capsules, add a small amount of water to partially dissolve them. For liquids, add enough table salt, flour, charcoal, or nontoxic powdered spice to make an unsightly mixture that discourages anyone from consuming it. For blister packs, wrap the packages containing pills in multiple layers of duct or other opaque tape.

- 3. Seal and conceal. Tape the medication container lid shut with packing or duct tape, place it inside a non-transparent bag or container such as an empty yogurt or margarine tub so the contents cannot be seen. Do not conceal medicines in food products because they could inadvertently be consumed by wildlife scavengers.
- 4. Discard the container in your garbage can. Do not place in the recycling bin.

As a national dialogue on pharmaceutical waste continues, additional options for management of expired or unwanted medications may become available. Check the MPCA website at www.pca.state.mn.us/hhw for updates.

### Lawn watering restrictions are enforced

The Woodbury City Council has adopted lawn watering restrictions to conserve water resources, ensure fire-fighting reserves, and maintain adequate water pressure for the city.

The lawn watering restrictions state that:

- 1. Residents and businesses may sprinkle their lawns according to an odd/even schedule. This means if your home or business address ends in an odd number (1, 3, 5, etc.) you may water your lawn on odd-numbered calendar days each month. Likewise, if your address ends in an even number (0, 2, 4, etc.) you may sprinkle on even-numbered days of the month.
- 2. Lawn sprinkling is permitted only before noon and after 5 p.m. regardless of whether it is "your day" to water.

This policy is in effect year round, and violators will be issued a citation. First-time offenders are not exempt.

Town home associations are often assigned an odd/even lawn-watering day that may or may not coincide with individual home addresses within the association.

Special lawn watering permits can be obtained for newly-placed sod or seed. Call Public Works at (651) 714-3720 for information.

## **Water and health**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

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The Woodbury Water Report is published annually by the City of Woodbury and mailed to all water customers. Comments are welcomed. Send to: Woodbury City Hall, 8301 Valley Creek Road, Woodbury, MN 55125-3330. Phone: (651) 714-3500. email: ilehr@ci.woodburv.mn.us

Mayor: Mary Giuliani Stephens. Council Members: Christopher Burns, Julie Ohs, Paul Rebholz, Amy Scoggins. City Administrator: Clinton Gridley. Communications Coordinator: Julie Lehr.

The City of Woodbury is subject to Title II of the Americans with Disabilities Act. In accordance with the act, the Woodbury newsletter is available in other

formats. Call Julie Lehr, 714-3500; TDD: 714-3568.

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